

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
1 September 2005 (01.09.2005)

PCT

(10) International Publication Number
WO 2005/079427 A3

- (51) International Patent Classification⁷: **B32B 3/10**
- (21) International Application Number:
PCT/US2005/004955
- (22) International Filing Date:
16 February 2005 (16.02.2005)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
60/545,590 17 February 2004 (17.02.2004) US
- (71) Applicant (for all designated States except US): **WATERS INVESTMENTS LIMITED** [US/US]; 109 Lukens Drive, New Castle, DE 19720 (US).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): **O'GARA, John, E.** [US/US]; 30 Bellview Heights, Ashland, MA 01721 (US).
- (74) Agent: **LAURO, Peter, C.**; Edwards & Angell, LLP, P.O. Box 55874, Boston, MA 02205 (US).
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:**
- with international search report
 - before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments
- (88) Date of publication of the international search report:
12 January 2006

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

WO 2005/079427 A3

(54) Title: POROUS HYBRID MONOLITH MATERIALS WITH ORGANIC GROUPS REMOVED FROM THE SURFACE

(57) Abstract: A material for chromatographic separations, processes for its preparation, and separation devices containing the chromatographic material. In particular, porous inorganic/organic hybrid monoliths are provided with a decreased concentration of surface organic groups, and have improved pH stability, improved chromatographic separation performance, and improved packed bed stability. These monoliths may be surface modified resulting in higher bonded phase surface concentrations and have enhanced stability at low pH.